

## Remarks

### *Summary*

Amended independent Claims 1, 5, 14, and 18 now even more clearly satisfy 35 U.S.C. § 112, second paragraph, and even more clearly define the novel and unobvious features of the present invention. As a result, the application is now in allowable form.

### *Status of the Claims*

Claims 1, 4, 5, 8-14, and 17-27 are pending. Claims 1, 5, 14, and 18 are independent. Claims 2, 3, 6, 7, 15, and 16 have been canceled without prejudice. Claims 1, 5, 14, and 18 have been amended to overcome formal and substantive rejections thereof. Claims 4, 8-11, 13, 17, 20-23, and 25 have been amended to change their dependency because they were dependent on one or more of the canceled claims. In addition, Claims 1, 5, 14, and 18 have been amended for reasons unrelated to patentability to improve their form.

### *Requested action*

Applicants respectfully request that the Examiner reconsider and withdraw the outstanding objection and rejection in view of the foregoing amendments and the following remarks.

Applicants also respectfully request that this Amendment be entered. This Amendment could not have been presented earlier as it was earnestly believed that the claims on file would be found allowable. Given the Examiner's familiarity with the application, Applicants believe that a



full understanding and consideration of this Amendment would not require undue time or effort by the Examiner. Moreover, for the reasons discussed below, Applicants submit that this Amendment places the application in condition for allowance. At the very least, it is believed to place the application in better form for appeal. Accordingly, entry of this Amendment is believed to be appropriate and such entry is respectfully requested.

#### *Formal Rejection*

Claims 1-27 are rejected under 35 U.S.C. § 112, second paragraph, because the Examiner cannot understand how the elastic member is spaced from the end of the end seal, while the entire length of the elastic member contacts the end seal, as recited in Claims 1, 5, 14, and 18.

In response, while not conceding the propriety of the rejection and solely to advance prosecution, independent Claims 1, 5, 14, and 18 have been amended to delete this feature therefrom, thereby rendering the rejection moot.

#### *Substantive Rejection*

Claims 1-27 are rejected under 35 U.S.C. § 103(a), as being unpatentable over the patent to Uehara et al. in view of the patent to Nagashima. In addition, the Examiner requests that Applicants confirm the correspondence between the claimed elastic member and element 66.



### *Response to Substantive Rejection*

At the outset, Applicants confirm that elastic member 66 discussed in the specification corresponds to the claimed elastic member. In addition, flexible sheet 42 discussed in the specification corresponds to the flexible sheet now recited in all the independent claims. But Applicants also note that these two elements discussed in the specification are merely illustrative of a variety of elements that correspond to the claimed elastic member and the claimed flexible sheet. Nothing in this Amendment is to be construed to limit these claimed elements to the specific embodiments of the elastic member 66 and the flexible sheet 42 discussed in the specification.

Turning now to Applicant's response to the rejection, while not conceding the propriety thereof, independent Claims 1, 5, 14, and 18 have been amended. Applicants submit that as amended, these claims are allowable at least for the following reasons.

Independent Claim 1 relates to a method of remanufacturing a process cartridge. Claim 1 has been amended to recite an elastic member mounting step of mounting an elastic member on a toner developing container separated in a container separating step or another toner developing container, inside an area extending across and spaced from ends of an end seal positionable at one longitudinal end of a developing roller dismounted in a developing roller dismounting step or another developing roller and which is opposite a position where the toner accommodating portion is provided.

Claim 1 has also been amended to recite the mounting of an elastic member on the toner developing container separated in the container separating step or the another toner developing



container inside an area extending across and spaced from ends of an end seal positionable at the other longitudinal end of the developing roller dismounted in the developing roller dismounting step or the another developing roller and which is opposite a position where the toner accommodating portion is provided.

One non-limiting example of such a positioning of the elastic seal member is shown in Figure 35, where, as one can see, the elastic member 66 is positioned inside an area extending across and spaced from the ends of the end seal 34.

Claim 1 has also been amended to recite a flexible sheet mounting step of mounting a flexible sheet to the toner developing container having the developing blade mounted in a developing blade mounting step, the elastic member mounted in the elastic member mounting step, and the developing roller mounted in a developing roller mounting step and being separated in the container separating step. Claim 1 has been further amended to recite that in the alternative, the flexible sheet is mounted to the another toner developing container having the developing blade mounted in the developing blade mounting step, the elastic member mounted in the elastic member mounting step, and the developing roller mounted in the developing roller mounting step.

In addition, Claim 1 has been amended to recite that in either case, the flexible sheet is mounted so as to extend along the longitudinal direction of the developing roller and so as to cover a surface of one of the elastic members and so as to contact a part of one of the end seals.



By mounting the elastic member and the flexible sheet in this way, the process cartridge can be manufactured without the necessity of remounting a toner seal to seal a toner supply opening, simplifying the process-cartridge remanufacturing method.

To establish a prima facie case of obviousness against amended Claim 1, the Patent Office must satisfy the three criteria detailed in MPEP § 2142. If any one of these criterion is not satisfied, a prima facie case of obviousness has not been established. The three criteria are the all-limitations criterion, the expectation-of-success criterion, and the motivation-to-combine or modify criterion:

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. (Manual of Patent Examining Procedure, Original Eighth Edition, May 2004 Revision, page 2100-128, right column)

Thus, to satisfy its burden of proof to establish the obviousness of amended Claim 1, the Patent Office must at least 1) cite art showing the elastic member mounting step recited in amended Claim 1, 2) cite art showing the flexible sheet mounting step recited in Claim 1, 3) establish that the Uehara et al. and Nagashima patents suggest some motivation to remanufacture the Uehara et al. device in accordance with each of the ten preparing, separating, dismounting, mounting, refilling, and coupling steps recited by amended Claim 1, and



4) establish a reasonable expectation of success in remanufacturing the Uehara et al. device in accordance with each of the ten preparing, separating, dismounting, mounting, refilling, and coupling steps recited by amended Claim 1, based on the teachings of the Uehara et al. and Nagashima patents themselves. But, Office Action fails to establish any of these four obviousness criteria, as will now be discussed.

#### A. Lack of Disclosure of the Elastic-Member Mounting Step

Page 3 of the Office Action relies on the Uehara et al. patent to show the claimed elastic member and states “Uehara et al. teaches . . . an elastic member at a position spaced apart from a toner accommodating portion to a longitudinally inside portion of an end seal provided adjacent each of opposite longitudinal ends of the developing roller.” But, no portion of this patent is cited for this assertion and no element of the Uehara et al. patent is identified as corresponding to the claimed elastic member, contrary to MPEP § 706.02 (j). Therefore, if the Examiner repeats this rejection, Applicants respectfully request that she identify a) the element corresponding to the claimed elastic member and b) the portion of the Uehara et al. patent showing an elastic member mounted as recited in amended Claim 1, i.e., inside an area extending across and spaced from ends of an end seal positionable at a longitudinal end of a developing roller.

An inspection of this patent is understood to reveal the use of side sealing members 55 attached to recesses 54 of a developing device case 29 (column 7, lines 5-8 and lines 37-40, and Figures 5 and 6), and auxiliary sealing members 62 on opposite ends of a trimming blade 33 (column 9, lines 5-21) on a step 57 supporting a magnetic roller 17, to regulate the thickness of



developer on a developing sleeve 18 (column 8, lines 27-37). As seen in Figure 6, the sealing members 62 are not understood to be positioned or sized to be coextensive with or smaller than the sealing members 55. Instead they appear larger than the sealing members 55 and appear to overlap sealing members 55 by only a small amount H5. Therefore, the sealing members 62 are understood to extend beyond the end of the sealing members 55 for most of their extent (and vice versa).

For the sake of clarifying the difference between these sealing members 55 and 62 and Claim 1, the Examiner is invited to compare Figure 35 of the present application (showing one non-limiting example of positioning an elastic member 66 inside an area extending across and spaced from ends of an end seal 34) to Figure 6 of the Uehara et al. patent (showing a sealing member 62 extending far beyond the end of the sealing member 55). This comparison makes clear that sealing members 55 extend beyond the ends of sealing members 62 and sealing members 62 extend beyond the ends of sealing members 55 in the Uehara et al. patent, while elastic member 66 does not extend beyond end seal 34 in Figure 35 of the present application. As a result, even assuming arguendo that one of the sealing members 55 and 62 could be considered to be an end seal, neither the sealing members 62, nor the sealing members 55 is not understood to be able to comprise an elastic member inside an area extending across and spaced from ends of an end seal, as recited by amended Claim 1.

Moreover, neither the patent to Uehara et al., nor the patent to Nagashima, is understood to disclose or suggest a remanufacturing method comprising a step of mounting an elastic member inside an area extending across and spaced from ends of an end seal positionable at a



longitudinal end of a developing roller, as also recited by amended Claim 1. Nor does the Office Action assert that the cited art discloses such a mounting step as part of a remanufacturing method.

Therefore, since the cited art is not understood to disclose at least these features of amended Claim 1, the Office is not understood to have yet established that the all-limitations criterion of obviousness has been satisfied. Consequently, for this reason alone, the Patent Office has not satisfied its burden of proof to reject Claim 1.

#### B. Lack of Disclosure of the Flexible-Sheet Mounting Step

Page 5 of the Office Action appears to rely on column 10, line 15 through column 12, line 44 of the Nagashima patent to show the flexible sheet mounting step. But, no element of the Nagashima patent is identified as corresponding to the claimed flexible sheet member. Therefore, if the Examiner repeats this rejection, Applicants respectfully request that she identify the element corresponding to the claimed flexible sheet, as recited in amended Claim 1.

In the absence of guidance from the Office Action as to which elements of the Nagashima patent are relied on to show the claimed flexible sheet, Applicants note that Column 10, lines 7 through 18 of the Nagashima patent appears to disclose the removal of a used long side seal 25a, a used short side seal 25b, and a used film 25c at the bottom of a developing device frame 12b and their replacement with fresh seals, as shown in Figure 10. But, Figure 10 is not understood to show any of these three seals covering a surface of an elastic member and contacting a part of



an end seal, as required by amended Claim 1. Thus, these seals are not understood to comprise the flexible sheet recited in amended Claim 1.

Column 7, lines 44-52 and column 10, line 22 through column 12, line 44 are understood to disclose the use of a resealing member 26 for resealing the opening 12a1 of the toner container 12a. The resealing member 26 is understood to comprise a flexible sheet 26b, adhered to an elastic sheet 26c (column 10, lines 25-27) and is understood to be sandwiched between a sliding sheet 28 and an insertion plate 29 so that the resealing member 26 can be easily inserted into a slit 27 between an opening limiting member 15 and a developing frame 12b (column 11, lines 8-44) until the plate 29 reaches the end seal 18, as shown in Figures 13A through 13C. When elements 28 and 29 are removed, the resealing member 26 is understood to remain in the slit 27 covering the opening 15a of the member 15 (column 12, lines 1-12), as shown in Figure 13D. But, as also shown in Figure 13D, the resealing member 26 appears to be spaced from the end seal 18. In addition, the resealing member 26 is not understood to be disclosed to cover a surface of an elastic member. Therefore, the resealing member 26 is not understood to be able to serve as a flexible sheet mounted so as to extend along the longitudinal direction of a developing roller and so as to cover a surface of an elastic member and so as to contact a part of an end seal, as recited by amended Claim 1.

Moreover, neither the patent to Uehara et al., nor the patent to Nagashima is understood to disclose or suggests a remanufacturing method comprising a step of mounting such a flexible sheet, as also recited by amended Claim 1.



Therefore, since the cited art is not understood to disclose at least these features of amended Claim 1, the Office is not understood to have established that the all-limitations criterion of obviousness has been satisfied. Consequently, for this additional reason, the Patent Office has not satisfied its burden of proof to reject Claim 1.

C. Lack of Disclosure of Motivation To Combine

Of the twelve pages comprising the Office Action, only one sentence makes any significant attempt to supply the required motivation to combine the references to produce the invention of Claim 1.

This sentence appears at page 4 and states that “It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teaching of Nagashima with the process cartridge of Uehara et al. to obtain a remanufacturing process in which the sealing member is easily mountable (column 1, lines 37-49).”

Although this passage does not indicate to which patent the reference to a column and line number refer, an inspection of this portion of both patents indicates that the Examiner appears to refer to the Nagashima patent here. But, this portion of the Nagashima patent merely states that it is an object of the Nagashima invention to provide “a sealing member, a sealing member mounting method, a developing apparatus, a process cartridge, a process cartridge remanufacturing method and an image forming apparatus in which the sealing member is easily mountable.” This portion of the Nagashima patent does not suggest remanufacturing a process cartridge by using the elastic-member and flexible-sheet mounting steps recited by amended



Claim 1. Thus, the Office Action has not established the required motivation to combine the references to produce the invention of amended Claim 1.

Moreover, the Office Action's attempt to satisfy the motivation-to-combine criteria suffers a more fundamental problem. The Uehara, et al. patent is understood to be directed to a mechanism to prevent toner leakage from an image forming unit using side sealing members for sealing a developing sleeve that has a magnetic roller therein, whose magnetic field causes wears of the sealing members (column 1, line 46 through column 4, line 25). It is not understood to relate to the field of remanufacturing a process cartridge, as is admitted at the top of page 3 of the Office Action. In contrast, the Nagashima patent is understood to relate to the remanufacturing of a different kind of cartridge by using a novel apparatus and method for resealing an opening of a toner accommodation container using a sealing member comprising a flexible film and an elastic sheet on the film (column 1, lines 2-48, column 9, lines 1-8, column 11, lines 30 through column 12, line 44, and column 18, line 26 through column 19, line 55). There does not appear to be any suggestion in the Uehara, et al. patent that it can be remanufactured using any of the ten steps recited in amended Claim 1, and there does not appear to be any suggestion in the Nagashima patent that its method of remanufacturing a process cartridge should or could be applied to the Uehara, et al. device. Nor has the Office Action alleged any such suggestion. Thus, the Office Action's motivation-to-combine argument is reduced to this contention: Since the references can be combined, the resulting combination is obvious. But, such reasoning is prohibited under MPEP §2142, which states that "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also



suggests the desirability of the combination”. (Manual of Patent Examining Procedure, Original Eighth Edition, May 2004 Revision, page 2100-131) For this additional reason, the Patent Office has not satisfied the motivation-to-combine criterion of obviousness.

Finally, the Office Action makes several statements, such as “Uehara et al. in view of Nagashima also further suggests a flexible sheet mounting step . . .” (page 4). But, the Office Action never explains the rationale for these statements. Nor does the Office Action provide any citation to a portion of a reference suggesting the application of at least the elastic-material and flexible-sheet mounting steps recited by amended Claim 1 to the process cartridge described in Uehara, et al. patent. Thus, these portions of the Office Action also do not satisfy the burden of proof required by MPEP § 2142 to reject Claim 1 as obvious over the patents to Uehara, et al. and Nagashima.

#### D. Lack of Evidence for a Reasonable Expectation of Success

The Office Action does not directly address the issue of the strength of the evidence for believing that there would be a reasonable expectation of success in remanufacturing the Uehara, et al. device in accordance with the teachings of the Nagashima patent to produce the invention of amended Claim 1. The closest the Office Action approaches to such a discussion is a single sentence found at page 12. In this portion of the Office Action, after appearing to admit that the Nagashima patent fails to disclose the elastic member mounting step, the Office Action states: “However, when the remanufacturing method of Nagashima is applied to a process cartridge with the same toner seal configuration, including the newly claimed elastic member, as in the instant



invention such as described in Uehara, one of ordinary skill would arrive at the claimed invention.”

But this statement is merely conclusory. It does not identify any evidence for this statement, as required by MPEP § 2142. Thus, the Office Action does not provide evidence of a reasonable expectation of success or an explanation of why combining the reference teachings would be successful, particularly because the Uehara, et al. patent is not understood to be directed to remanufacturing or disassembly at all and is not understood to provide guidance for such an enterprise. Moreover, the cartridges disclosed in the two patent are understood to exhibit significant differences. For example, Nagashima’s disassembly method is understood to involve removing four pins 19 fixing the developing unit 17 and the cleaning container 12c, disengaging claws 12c1 and engaging holes 12d3, removing springs 20, and releasing the connection of arms 21 threaded to the ends of the developing frame 12b with the cleaning container 12c (column 9, lines 8 through 41). It is not clear to Applicants what the analogous disassembly method would be for the Uehara, et al. device. Without a detailed explanation of how the Uehara, et al. patent could be modified in view of the Nagashima patent to be disassembled and reassembled to produce the invention of Claim 1, the Patent Office has not satisfied its burden of proof to establish a reasonable expectation of success, as required by MPEP § 2142. Thus, the Office Action fails to satisfy the reasonable-expectation-of-success criterion of obviousness



## *Conclusion*

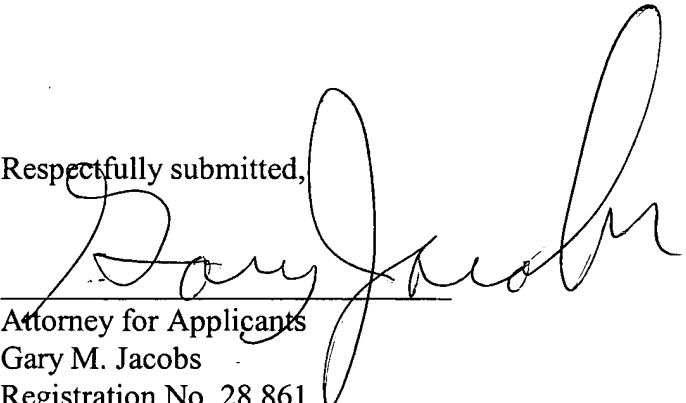
For all of these reasons, the Office has failed to establish a prima facie case of obviousness against amended Claim 1. And since independent Claims 5, 14, and 18 have been amended to recite similar or identical features, they are allowable for similar or identical reasons.

The other rejected claims in this application depend from one or another of the independent claims discussed above, and, therefore, are submitted to be patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, individual reconsideration of the patentability of each claim on its own merits is respectfully requested.

In view of the above amendments and remarks, entry of this amendment is considered proper the application is now in allowable form. Therefore, early passage to issue is respectfully solicited.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our address given below.

Respectfully submitted,

  
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